

**REMARKS****Summary of the Office Action**

Claims 1 and 2 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Yamada et al. (U.S. Patent No. 6,768,516) (hereinafter "Yamada").

Claims 3 and 4 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Yamada in view of Throngnumchai et al. (U.S. Patent No. 5,705,807) (hereinafter "Throngnumchai").

**Summary of the Response to the Office Action**

Applicants have amended claims 1-2 and 4, and added new dependent claim 5, to differently describe embodiments of the disclosure of the instant application and/or to improve the form of the claims. Applicants have canceled claim 3 without prejudice or disclaimer. Accordingly, claims 1-2 and 4-5 are currently pending and under consideration.

**Rejections under 35 U.S.C. §§ 102(b) and 103(a)**

Claims 1 and 2 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Yamada. Claims 3 and 4 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Yamada in view of Throngnumchai. Applicants have amended claims 1-2 and 4 to differently describe embodiments of the disclosure of the instant application. To the extent that these rejections might be deemed to still apply to the claims as newly-amended, the rejections are respectfully traversed for at least the following reasons.

Applicants respectfully submit that Yamada does not disclose, or even suggest, “a load resistor electrically connected to an output terminal of the solid-state imaging element,” where “the load resistor and the output terminal of the solid-state imaging element are electrically connected via a bonding wire,” as described in the newly-amended independent claims 1 and 2. Applicants respectfully submit that this amendment to independent claims 1 and 2 is supported, for example, by original dependent claim 3 and paragraphs [0036], [0040], and [0050] – [0053] of the specification of the instant application.

Applicants respectfully submit that at page 3 of the Office Action, the Examiner concedes that Yamada fails to teach “the signal processing circuit includes a load resistor that is electrically connected to an output terminal of the solid-state imaging element.” Furthermore, Applicants respectfully submit that in Yamada, the image pick-up semiconductor 4 and the image processing semiconductor 9 are electrically connected to the wiring board 21 via bumps 27 and 28. In this regard, please refer to Yamada at col. 4, lines 22 to 30 and FIGS. 1 and 2. As described in the paragraph [0044] of the specification of the instant application, Applicants respectfully note that one object of the present application is to protect the CCD chip 11 (e.g., solid-state imaging apparatus) from the heat generated by the load resistors 22. Thus, the embodiments of the present application include a configuration that is difficult for the heat generated by the load resistors to reach the solid-state imaging element by implementing the bonding wires, as the load resistors and the output terminals of the solid-state imaging element are electrically connected via the bonding wires. In contrast, the embodiments of Yamada use the projecting electrodes/bumps to create the electrical connection, where such connection is likely to transfer heat from the image processing semiconductor 9 to the image pick-up semiconductor 4.

As pointed out in MPEP § 2131, "[t]o anticipate a claim, the reference must teach every element of the claim." Thus, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. Of California*, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987)." Accordingly, Applicants respectfully assert that the rejections under 35 U.S.C. § 102(e) should be withdrawn because Yamada does not teach or suggest each feature of independent claims 1 or 2 of the instant application, as newly-amended. Furthermore, Applicants respectfully submit that Throngnumchai does not teach or suggest the features of "the load resistor and the output terminal of the solid-state imaging element are electrically connected via a bonding wire." Therefore, Applicants respectfully submit that a person having ordinary skill in the art would not be able to derive the present invention from the disclosures of Yamada and Throngnumchai. For at least the forgoing reasons, Applicants respectfully submit that Throngnumchai fails to cure the deficiencies of Yamada, even assuming, strictly arguendo, that the combination proposed by the Office Action might be made.

Accordingly, in view of the arguments presented above, Applicants respectfully assert that the rejections under 35 U.S.C. §§ 102(e) and 103(a) should be withdrawn. Moreover, Applicants respectfully submit that the dependent claim 4 is allowable at least because of its dependence from newly-amended independent claims 1 or 2, and the reasons discussed above.

#### **New Claim 5**

Applicants added new dependent claim 5 to further describe embodiments of the present application. Applicants respectfully submit that new dependent claim 5 is supported by, for example, paragraphs [0040] and [0052] of the specification of the instant application.


**CONCLUSION**

In view of the foregoing, Applicants submit that the pending claims are in condition for allowance, and respectfully request reconsideration and timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response; the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution. A favorable action is awaited.

**EXCEPT** for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. § 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0573. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

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